

ABSTRACT OF THE DISCLOSURE

An EUV exposure apparatus is provided in which coils of an electromagnetic motor for driving a stage are kept from overheat damage as a result of heat generated by the coils themselves. In an EUV exposure apparatus for exposing a mask pattern to a wafer in a vacuum, the apparatus comprises an electromagnetic motor disposed in the vacuum and driving at least one of a mask stage and a wafer stage, and a cooling unit for cooling the electromagnetic motor to prevent overheat damage of the electromagnetic motor caused by heat generated by the electromagnetic motor.